

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A leadframe for a radiation-emitting component, comprising:
a mount part having:
at least one wire connecting area;
an opening formed therein and extending completely through the mount part; and
at least one external electrical connecting strip; and
a separately manufactured thermal connecting part disposed in said opening and fastened into said mount part to form an electrical connection with the at least one external electrical connecting strip, said thermal connecting part having at least one chip mounting area and a reflector well surrounding said chip mounting area,
wherein the thermal connecting part extends through the opening in the mount part and connects to the mount part at the opening to transfer heat away from the mount part.
2. (Previously Presented) The leadframe according to claim 1, wherein said mount part has one of a bracket and an eye into which said thermal connecting part is fastened.
3. (Original) The leadframe according to claim 1, wherein said thermal connecting part and said mount part are connected by at least one of the group consisting of a crimped connection, a riveted connection, a soldered connection, and a welded connection therebetween.

4. (Original) The leadframe according to claim 1, further comprising a connection between said thermal connecting part and said mount part, said connection being at least one of a crimped connection, a riveted connection, a soldered connection, and a welded connection.
5. (Canceled)
6. (Previously Presented) The leadframe according to claim 1, wherein said wire connecting area is disposed at a higher level than said chip mounting area as viewed from said chip mounting area.
7. (Original) The leadframe according to claim 6, wherein:
said reflector well has an edge; and
said wire connecting area is disposed above said edge as viewed from said chip mounting area.
8. (Previously Presented) The leadframe according to claim 1, wherein:
a chip is to be mounted on said chip mounting area; and
said reflector well has height no greater than twice a height of the chip.
9. (Previously Presented) The leadframe according to claim 1, said thermal connecting part having at least one chip mounting area, and containing at least one of copper, aluminum, molybdenum, iron, nickel, and tungsten..
10. (Original) The leadframe according to claim 1, wherein said chip mounting area has a surface coating for improving mounting of a chip.
11. (Original) The leadframe according to claim 10, wherein said surface coating is at least one of a silver coating and a gold coating.

12. (Original) The leadframe according to claim 1, wherein said leadframe contains at least one of copper and iron.

13. (Previously Presented) A leadframe for a radiation-emitting component, comprising:
a mount part having:

at least one wire connecting area;

an opening formed therein and extending completely through the mount part; and

at least one external electrical connecting strip having a surface coating for
improving component mounting characteristics; and

a separately manufactured thermal connecting part disposed in said opening and fastened
into said mount part to form an electrical connection with the at least one external electrical
connecting strip, said thermal connecting part having at least one chip mounting area,

wherein the thermal connecting part extends through the opening in the mount part and
connects to the mount part at the opening to transfer heat away from the mount part.

14. (Original) The leadframe according to claim 13, said surface coating is a coating selected
from at least one of a group consisting of a silver coating, a gold coating, a tin coating, and a zinc
coating.

15. (Original) The leadframe according to claim 1, wherein the radiation-emitting
component is a light-emitting diode component.

16. Canceled.

17. (Previously Presented) A housing for one or more light-emitting components,
comprising:

(i) a leadframe including:

a mount part having:
at least one wire connecting area;
an opening formed therein and extending completely through the mount part; and
at least one external electrical connecting strip; and
a separately manufactured thermal connecting part disposed in said opening and fastened into said mount part to form an electrical connection with the at least one external electrical connecting strip, said thermal connecting part having at least one chip mounting area, wherein the thermal connecting part extends through the opening in the mount part and connects to the mount part at the opening to transfer heat away from the mount part; and
(ii) a housing base body formed from a molding compound, wherein said leadframe is embedded in said base body to pass out said connecting strip from said base body, said thermal connecting part has a thermal connecting surface thermally connectable from the outside, and the housing is a surface mounted housing having a bearing surface for the surface mounting with the thermal connecting surface extending to the bearing surface for conducting heat to an exterior surface to which the bearing surface mounts the housing.

18. (Previously Presented) The housing according to claim 17, wherein the chip mounting area and the thermal connecting surface are on opposite sides of the thermal connecting part.

19. (Previously Presented) The housing according to claim 18, wherein:
said base body has a radiation outlet window; and
said thermal connecting part is embedded in said base body to dispose said chip mounting area in said radiation outlet window.

20. (Original) The housing according to claim 19, wherein said radiation outlet window has side walls in the form of reflector surfaces.

21. (Original) The housing according to claim 19, wherein said radiation outlet window has reflective side walls.

22. (Original) The housing according to claim 20, wherein:
said thermal connecting part has a reflector well forming a first part of a reflector;
said side walls of said radiation outlet window form a second part of said reflector; and
said well merges to said second part.

23. (Original) The housing according to claim 22, wherein:
a chip is to be mounted on said chip mounting area; and
an overall height of said reflector is no greater than four times a height of the chip.

24. (Original) The housing according to claim 23, wherein:
the chip has a main emission direction;
said reflector well has reflector walls;
said radiation outlet window has reflector surfaces; and
said reflector walls and said reflector surfaces are at different angles with respect to the main emission direction.

25. (Original) The housing according to claim 24, wherein an angle between said reflector walls and the main emission direction is greater than an angle between said reflector surfaces and the main emission direction.

26. Canceled.

27. (Previously Presented) The housing according to claim 17, wherein said leadframe is a surface mounted leadframe.

28. (Previously Presented) A housing for light-emitting components, comprising:
the leadframe according to claim 1,
the light-emitting components being light-emitting diodes.
29. Canceled.
30. (Previously Presented) A radiation-emitting component, comprising:
a radiation-emitting chip at least partially sheathed with a radiation-permeable
compound; and
one of:
the leadframe of claim 1; and
a housing for light-emitting components having:
the leadframe of claim 1.
31. (Original) The radiation-emitting component according to claim 30, wherein said chip is
a semiconductor chip.
32. Canceled.
33. (Previously Presented) The radiation-emitting component according to claim 30, wherein
said radiation-permeable compound is a plastic compound.
34. (Original) The radiation-emitting component according to claim 33, wherein said plastic
compound is one of a casting resin and a molding compound.

35. (Original) The radiation-emitting component according to claim 33, wherein said plastic compound contains at least one of a group consisting of an epoxy resin, an acryl resin, a silicone resin, and a mixture of at least two of said epoxy resin, said acryl resin, and said silicone resin.

36. (Original) The radiation-emitting component according to claim 33, wherein:
said chip is a semiconductor chip; and
said radiation-permeable compound has a volume described by the formula $V \leq q H$,
where H is a height of said chip and q is a scaling factor having a value is less than 10 mm^2 .

37. (Original) The radiation-emitting component according to claim 36, wherein q is a scaling factor having a value approximately equal to 7 mm^2 .

38. (Original) The radiation-emitting component according to claim 30, wherein said chip is a semiconductor chip mounted on said chip mounting area of said thermal connecting part.

39. (Original) The radiation-emitting component according to claim 38, wherein said chip is connected to said chip mounting area by one of an adhesive bond and a solder.

40. (Original) The radiation-emitting component according to claim 38, wherein said chip is one of adhesively bonded and soldered to said chip mounting area.

41. (Original) The radiation-emitting component according to claim 39, wherein said chip is mounted on said chip mounting area by a silver solder.

42. (Original) The radiation-emitting component according to claim 41, wherein said silver solder has a melting temperature greater than 260° C .

43. (Original) The radiation-emitting component according to claim 30, further comprising a wire connection electrically conductively connecting said chip to said wire connecting area.

44. (Previously Presented) A method for producing a semiconductor component according to claim 30, which comprises:

providing the mount part;

fastening the thermal connecting part having the chip mounting area into the opening formed in the mount part;

fitting the radiation-emitting chip to the chip mounting area; and

embedding the mount part and the thermal connecting part in a housing molding compound.

45. (Original) The method according to claim 44, which further comprises connecting the thermal connecting part to the mount part by one of riveting, crimping, and soldering.

46. (Original) The method according to claim 44, which further comprises fitting the chip to the chip mounting area before the mount part and the thermal connecting part are embedded in the housing molding compound.

47. (Original) The method according to claim 44, which further comprises soldering the chip to the chip mounting area at a soldering temperature greater than 260° C.

48. (Original) The method according to claim 44, which further comprises mounting the chip on the chip mounting area with a silver solder.

49. (Original) The method according to claim 44, which further comprises embedding the mount part and the thermal connecting part in the housing molding compound by one of injection-molding and injection-compression.

50-51. Canceled.

52. (Previously Presented) A leadframe for a radiation-emitting component, comprising:
a first electrically conductive component having a mounting region and an electrical connecting strip extending from the mounting region, the mounting region having an opening formed therein; and

a separately manufactured thermal connecting part disposed in the opening of the mounting region and secured to the mounting region to form an electrical connection with the first electrically conductive component, wherein the thermal connecting part comprises at least one chip mounting area and a reflector well surrounding said chip mounting area, and wherein the opening extends completely through the first component and the thermal connecting part extends through the opening in the mounting region and connects to the mounting region at the opening to transfer heat away from the mounting region.

53. Canceled.

54. (Previously Presented) The housing of claim 17, wherein the exterior surface is the surface of a printed circuit board configured to receive the housing.

55. (Previously Presented) The housing of claim 17, further comprising a light-emitting diode mounted in the chip mounting area.

56. (Previously Presented) The housing of claim 17, wherein the housing base body comprises the bearing surface.

57. (Previously Presented) The housing of claim 17, wherein the thermal connecting surface and the bearing surface are substantially planar.

58. (Previously Presented) The leadframe according to claim 1, wherein the leadframe is a surface-mountable component.

59. (Previously Presented) The leadframe according to claim 13, wherein the leadframe is a surface-mountable component.

60. (Previously Presented) The leadframe according to claim 52, wherein the leadframe is a surface-mountable component.

61. (Previously Presented) A housing for one or more light-emitting components, said housing comprising:

the leadframe according to claim 52; and

a housing base body formed from a molding compound, wherein said leadframe is embedded in said base body to pass out said connecting strip from said base body.

62. (Previously Presented) The housing according to claim 61, wherein said thermal connecting part has a thermal connecting surface thermally connectable from the outside, and the housing is a surface mounted housing having a bearing surface for the surface mounting with the thermal connecting surface extending to the bearing surface for conducting heat to an exterior surface to which the bearing surface mounts the housing.

63. (Previously Presented) The housing according to claim 62, wherein the chip mounting area and the thermal connecting surface are on opposite sides of the thermal connecting part.

64. (Previously Presented) A radiation-emitting component, comprising:

a radiation-emitting chip at least partially sheathed with a radiation-permeable compound, and one of:

a leadframe; and

a housing for light-emitting components having a leadframe,
wherein the leadframe comprises:

a mount part having at least one wire connecting area, an opening formed therein and extending completely through the mount part, and at least one external electrical connecting strip; and

a separately manufactured thermal connecting part disposed in said opening and fastened into said mount part to form an electrical connection with the at least one external electrical connecting strip, said thermal connecting part having at least one chip mounting area,

wherein the thermal connecting part extends through the opening in the mount part and connects to the mount part at the opening to transfer heat away from the mount part,

wherein the chip is a semiconductor chip, the radiation-permeable compound is a plastic compound, and the radiation-permeable compound has a volume described by the formula $V \leq q H$, where H is a height of said chip and q is a scaling factor having a value is less than 10 mm^2 .